

# Global United Technology Services Co., Ltd.

Report No.: GTSE14020012901

# **FCC REPORT**

Applicant: Shenzhen Bondidea Technology Co., LTD

Address of Applicant: 10th building, Honghualing Industrial Park, Qingshui Rd,

Longgang, Shenzhen, China

**Equipment Under Test (EUT)** 

Product Name: Bluetooth keyboard

Model No.: K009

FCC ID: Y4PK009

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249:2012

Date of sample receipt: February 13, 2014

Date of Test: February 13-21, 2014

**Date of report issued:** February 21, 2014

Test Result: PASS \*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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### 2 Version

Version No.	Date	Description
00	February 21, 2014	Original

	Reviewer			
Check By:	Hans. Hu	Date:	February 21, 2014	
	Project Engineer			
Prepared By:	San. Gao	Date:	February 21, 2014	



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## 4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	N/A
Field strength of the fundamental signal	15.249 (a)	Pass
Spurious emissions	15.249 (a) (d)/15.209	Pass
Band edge	15.249 (d)/15.205	Pass
20dB Occupied Bandwidth	15.215 (c)	Pass

Pass: The EUT complies with the essential requirements in the standard.

N/A: not applicable.



### **5** General Information

### 5.1 Client Information

Applicant:	Shenzhen Bondidea Technology Co., LTD
Address of Applicant:	10th building, Honghualing Industrial Park, Qingshui Rd, Longgang, Shenzhen, China
Manufacturer/Factory:	Shenzhen Bondidea Technology Co., LTD
Address of Manufacturer/Factory:	10th building, Honghualing Industrial Park, Qingshui Rd, Longgang, Shenzhen, China

### 5.2 General Description of EUT

Product Name:	Bluetooth keyboard
Model No.:	K009
Bluetooth Version:	3.0
Operation Frequency:	2402MHz~2480MHz
Channel numbers:	79
Channel separation:	1MHz
Modulation type:	GFSK
Antenna Type:	PCB Antenna
Antenna gain:	2dBi
Power supply:	DC 3V(SIZE AAA 1.5V*2)

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Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402MHz	21	2422MHz	41	2442MHz	61	2462MHz
2	2403MHz	22	2423MHz	42	2443MHz	62	2463MHz
					:		:
19	2420MHz	39	2440MHz	59	2460MHz	79	2480MHz
20	2421MHz	40	2441MHz	60	2461MHz		

#### Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2441MHz
The Highest channel	2480MHz



#### 5.3 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode with GFSK modulation.
Remark: During the test, the full of	charged battery was used.

#### Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	Х	Y	Z
Field Strength(dBuV/m)	82.55	84.74	80.82

#### **Final Test Mode:**

According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup":

Y axis (see the test setup photo)

#### 5.4 Description of Support Units

Description	Manufacturer	Model	Serial Number	FCC ID/DoC
N/A	N/A	N/A	N/A	N/A

#### 5.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### CNAS —Registration No.: CNAS L5775

CNAS has accredited Global United Technology Services Co., Ltd. To ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

#### • FCC —Registration No.: 600491

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fuly described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, June 28, 2013.

#### Industry Canada (IC) —Registration No.: 9079A-2

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, June 26, 2013.

#### 5.6 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen,

China

Tel: 0755-27798480 Fax: 0755-27798960

#### 5.7 Other Information Requested by the Customer

None.

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102

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### 6 Test Instruments list

Rad	Radiated Emission:							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 29 2013	Mar. 28 2014		
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A		
3	Spectrum Analyzer	Agilent	E4440A	GTS533	Dec. 05 2013	Dec. 04 2014		
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 02 2013	Jul. 01 2014		
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 24 2013	Feb. 23 2014		
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 28 2013	June 27 2014		
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 29 2013	Mar. 28 2014		
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A		
9	Coaxial Cable	GTS	N/A	GTS213	Mar. 30 2013	Mar. 29 2014		
10	Coaxial Cable	GTS	N/A	GTS211	Mar. 30 2013	Mar. 29 2014		
11	Coaxial cable	GTS	N/A	GTS210	Mar. 30 2013	Mar. 29 2014		
12	Coaxial Cable	GTS	N/A	GTS212	Mar. 30 2013	Mar. 29 2014		
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 02 2013	Jul. 01 2014		
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 02 2013	Jul. 01 2014		
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 28 2013	June 27 2014		
16	Band filter	Amindeon	82346	GTS219	Mar. 30 2013	Mar. 29 2014		



### 7 Test results and Measurement Data

### 7.1 Antenna requirement:

Standard requirement: FCC Part15 C Section 15.203

#### 15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### E.U.T Antenna:

The antenna is PCB Antenna, the best case gain of the antenna is 2dBi





### 7.2 Radiated Emission Method

 Madiated Ellission Me								
Test Requirement:	FCC Part15 C S	Section 15.20	9					
Test Method:	ANSI C63.4:200	03						
Test Frequency Range:	30MHz to 25GH	łz						
Test site:	Measurement D	Distance: 3m						
Receiver setup:	Frequency	Detector	RBW	VBW	Remark			
	30MHz- 1GHz	Quasi-peal	k 120KHz	300KHz	Quasi-peak Value			
	Above 1GHz	Peak	1MHz	3MHz	Peak Value			
	Above 1GHz	Peak	1MHz	10Hz	Average Value			
Limit:	Freque	ency	Limit (dBuV		Remark			
(Field strength of the	2400MHz-24	183.5MHz	94.0		Average Value			
fundamental signal)	2400WHZ-2403.5WHZ 114.00 Peak Value							
Limit:	Frequency Limit (dBuV/m @3m) Remark 30MHz-88MHz 40.00 Quasi-peak Value							
(Spurious Emissions)	30MHz-8			Quasi-peak Value				
	88MHz-2 <sup>-</sup> 216MHz-9		0	Quasi-peak Value Quasi-peak Value				
	960MHz-		10	Quasi-peak Value				
			54.0		Average Value			
	Above 1	GHZ	74.0		Peak Value			
Limit: (band edge)	harmonics, sha fundamental or	ll be attenuat to the genera	ed by at least al radiated em	50 dB belov	bands, except for w the level of the in Section 15.209,			
Test setup:	fundamental or to the general radiated emission limits in Section whichever is the lesser attenuation.  Below 1GHz  Antenna Tower  Search Antenna  RF Test Receiver  Ground Plane  Above 1GHz							



	Report No.: GTSE14020012901
	Antenna Tower  Horn Antenna  Spectrum Analyzer  Turn Table A A A A A A A A A A A A A A A A A A A
Test Procedure:	<ol> <li>The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> <li>For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</li> </ol>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

#### Measurement data:

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#### 7.2.1 Field Strength of The Fundamental Signal

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	85.78	27.58	5.39	34.01	84.74	114	-29.26	Vertical
2402.00	83.83	27.58	5.39	34.01	82.79	114	-31.21	Horizontal
2441.00	83.41	27.52	5.42	33.97	82.38	114	-31.62	Vertical
2441.00	79.18	27.52	5.42	33.97	78.15	114	-35.85	Horizontal
2480.00	76.72	27.52	5.47	33.92	75.79	114	-38.21	Vertical
2480.00	75.84	27.52	5.47	33.92	74.91	114	-39.09	Horizontal

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2402.00	75.77	27.58	5.39	34.01	74.73	94	-19.27	Vertical
2402.00	73.79	27.58	5.39	34.01	72.75	94	-21.25	Horizontal
2441.00	73.34	27.52	5.42	33.97	72.31	94	-21.69	Vertical
2441.00	69.22	27.52	5.42	33.97	68.19	94	-25.81	Horizontal
2480.00	67.78	27.52	5.47	33.92	66.85	94	-27.15	Vertical
2480.00	65.73	27.52	5.47	33.92	64.80	94	-29.20	Horizontal

According to the follow transmitter output power (Pt) formula:

 $P_t = (E \times d)^2 / (30 \times g_t)$ 

P<sub>t</sub> =transmitter output power in watts

g<sub>t</sub> =numeric gain of the transmitting antenna (unitless)

E=electric field strength in V/m

d= measurement distance in meters (m).

According to the above test data, Emax=84.74dBuV/m=0.0173V/m, d=3m,  $g_t$ =1.58

 $P_t = (E \times d)^2/(30 \times g_t) = (0.0173 \times 3)^2/(30 \times 1.58) = 0.0000568 W = 0.0568 mW$ 

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### 7.2.2 Spurious emissions

#### ■ Below 1GHz

- Delow I	0112							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
40.70	37.45	15.58	0.67	32.05	21.65	40.00	-18.35	Vertical
95.76	37.67	14.90	1.16	31.74	21.99	43.50	-21.51	Vertical
155.91	41.95	10.51	1.60	32.00	22.06	43.50	-21.44	Vertical
254.73	37.43	14.06	2.15	32.16	21.48	46.00	-24.52	Vertical
357.93	37.59	16.38	2.66	32.00	24.63	46.00	-21.37	Vertical
455.91	37.45	17.58	3.11	31.70	26.44	46.00	-19.56	Vertical
47.33	35.76	15.41	0.74	31.98	19.93	40.00	-20.07	Horizontal
101.29	35.71	15.02	1.20	31.77	20.16	43.50	-23.34	Horizontal
180.02	45.89	11.68	1.74	32.08	27.23	43.50	-16.27	Horizontal
207.85	39.67	12.80	1.89	32.14	22.22	43.50	-21.28	Horizontal
223.73	38.67	13.36	1.98	32.15	21.86	46.00	-24.14	Horizontal
366.82	36.97	16.48	2.70	31.98	24.17	46.00	-21.83	Horizontal

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#### ■ Above 1GHz

Test channel:	Lowest channel
---------------	----------------

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	43.20	31.78	8.60	32.09	51.49	74.00	-22.51	Vertical
7206.00	28.72	36.15	11.65	32.00	44.52	74.00	-29.48	Vertical
9608.00	22.35	37.95	14.14	31.62	42.82	74.00	-31.18	Vertical
12010.00	*					74.00		Vertical
14412.00	*					74.00		Vertical
4804.00	46.34	31.78	8.60	32.09	54.63	74.00	-19.37	Horizontal
7206.00	28.56	36.15	11.65	32.00	44.36	74.00	-29.64	Horizontal
9608.00	21.69	37.95	14.14	31.62	42.16	74.00	-31.84	Horizontal
12010.00	*					74.00		Horizontal
14412.00	*					74.00		Horizontal

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4804.00	33.13	31.78	8.60	32.09	41.42	54.00	-12.58	Vertical
7206.00	18.05	36.15	11.65	32.00	33.85	54.00	-20.15	Vertical
9608.00	12.05	37.95	14.14	31.62	32.52	54.00	-21.48	Vertical
12010.00	*					54.00		Vertical
14412.00	*					54.00		Vertical
4804.00	36.13	31.78	8.60	32.09	44.42	54.00	-9.58	Horizontal
7206.00	18.13	36.15	11.65	32.00	33.93	54.00	-20.07	Horizontal
9608.00	11.69	37.95	14.14	31.62	32.16	54.00	-21.84	Horizontal
12010.00	*					54.00		Horizontal
14412.00	*					54.00		Horizontal

#### Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "\*", means this data is the too weak instrument of signal is unable to test.



Test channel: Middle channel

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4882.00	43.17	31.85	8.67	32.12	51.57	74.00	-22.43	Vertical
7323.00	27.63	36.37	11.72	31.89	43.83	74.00	-30.17	Vertical
9764.00	23.79	38.35	14.25	31.62	44.77	74.00	-29.23	Vertical
12205.00	*					74.00		Vertical
14646.00	*					74.00		Vertical
4882.00	45.39	31.85	8.67	32.12	53.79	74.00	-20.21	Horizontal
7323.00	27.81	36.37	11.72	31.89	44.01	74.00	-29.99	Horizontal
9764.00	22.24	38.35	14.25	31.62	43.22	74.00	-30.78	Horizontal
12205.00	*					74.00		Horizontal
14646.00	*					74.00		Horizontal

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4882.00	33.46	31.85	8.67	32.12	41.86	54.00	-12.14	Vertical
7323.00	17.55	36.37	11.72	31.89	33.75	54.00	-20.25	Vertical
9764.00	13.46	38.35	14.25	31.62	34.44	54.00	-19.56	Vertical
12205.00	*					54.00		Vertical
14646.00	*					54.00		Vertical
4882.00	35.12	31.85	8.67	32.12	43.52	54.00	-10.48	Horizontal
7323.00	17.65	36.37	11.72	31.89	33.85	54.00	-20.15	Horizontal
9764.00	12.21	38.35	14.25	31.62	33.19	54.00	-20.81	Horizontal
12205.00	*					54.00		Horizontal
14646.00	*					54.00		Horizontal

#### Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "\*", means this data is the too weak instrument of signal is unable to test.



Test channel: Highest channel

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	44.41	31.93	8.73	32.16	52.91	74.00	-21.09	Vertical
7440.00	28.92	36.59	11.79	31.78	45.52	74.00	-28.48	Vertical
9920.00	24.06	38.81	14.38	31.88	45.37	74.00	-28.63	Vertical
12400.00	*					74.00		Vertical
14880.00	*					74.00		Vertical
4960.00	46.38	31.93	8.73	32.16	54.88	74.00	-19.12	Horizontal
7440.00	27.71	36.59	11.79	31.78	44.31	74.00	-29.69	Horizontal
9920.00	23.23	38.81	14.38	31.88	44.54	74.00	-29.46	Horizontal
12400.00	*					74.00		Horizontal
14880.00	*					74.00		Horizontal

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4960.00	34.15	31.93	8.73	32.16	42.65	54.00	-11.35	Vertical
7440.00	18.46	36.59	11.79	31.78	35.06	54.00	-18.94	Vertical
9920.00	14.01	38.81	14.38	31.88	35.32	54.00	-18.68	Vertical
12400.00	*					54.00		Vertical
14880.00	*					54.00		Vertical
4960.00	36.73	31.93	8.73	32.16	45.23	54.00	-8.77	Horizontal
7440.00	17.85	36.59	11.79	31.78	34.45	54.00	-19.55	Horizontal
9920.00	13.65	38.81	14.38	31.88	34.96	54.00	-19.04	Horizontal
12400.00	*					54.00		Horizontal
14880.00	*					54.00		Horizontal

#### Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. "\*", means this data is the too weak instrument of signal is unable to test.



### 7.2.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

l est channel: Lowest channel
-------------------------------

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	40.24	27.59	5.38	34.01	39.20	74.00	-34.80	Horizontal
2400.00	57.04	27.58	5.39	34.01	56.00	74.00	-18.00	Horizontal
2390.00	42.30	27.59	5.38	34.01	41.26	74.00	-32.74	Vertical
2400.00	61.44	27.58	5.39	34.01	60.40	74.00	-13.60	Vertical

#### Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	28.54	27.59	5.38	34.01	27.50	54.00	-26.50	Horizontal
2400.00	44.85	27.58	5.39	34.01	43.81	54.00	-10.19	Horizontal
2390.00	30.88	27.59	5.38	34.01	29.84	54.00	-24.16	Vertical
2400.00	49.46	27.58	5.39	34.01	48.42	54.00	-5.58	Vertical

Test channel:	Highest channel	

#### Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	44.04	27.53	5.47	33.92	43.12	74.00	-30.88	Horizontal
2500.00	36.93	27.55	5.49	33.90	36.07	74.00	-37.93	Horizontal
2483.50	51.53	27.53	5.47	33.92	50.61	74.00	-23.39	Vertical
2500.00	38.12	27.55	5.49	33.90	37.26	74.00	-36.74	Vertical

#### Average value:

The state of the s								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	29.82	27.53	5.47	33.92	28.90	54.00	-25.10	Horizontal
2500.00	24.79	27.55	5.49	33.90	23.93	54.00	-30.07	Horizontal
2483.50	33.14	27.53	5.47	33.92	32.22	54.00	-21.78	Vertical
2500.00	24.94	27.55	5.49	33.90	24.08	54.00	-29.92	Vertical

#### Remark:

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

<sup>1.</sup> Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor



### 7.3 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215			
Test Method:	ANSI C63.4:2003			
Limit:	Operation Frequency range 2400MHz~2483.5MHz			
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane			
Test Instruments:	Refer to section 6.0 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Pass			

#### **Measurement Data**

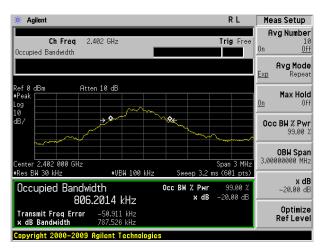
Worst case GFSK modulation

Test channel	20dB bandwidth(MHz)	Result
Lowest	0.788	Pass
Middle	0.766	Pass
Highest	0.808	Pass

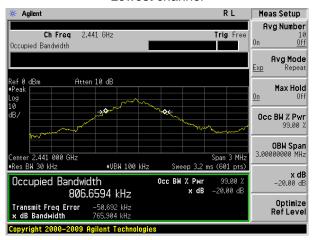
Test plot as follows:

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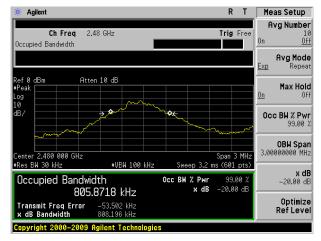




#### Lowest channel



#### Middle channel



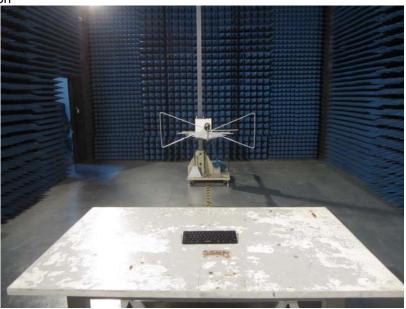
Highest channel

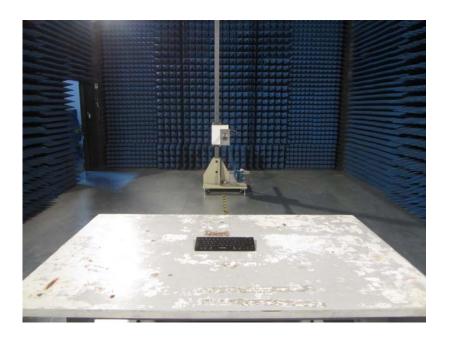
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



## 8 Test Setup Photo

Radiated Emission







### 9 EUT Constructional Details





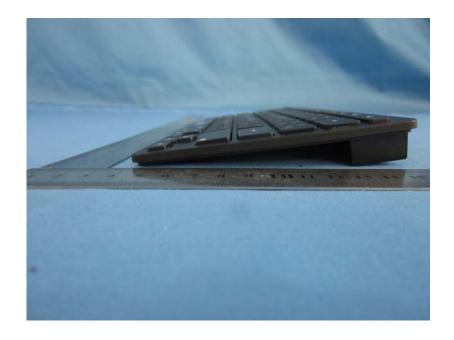




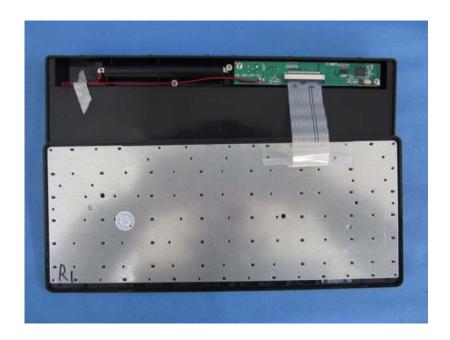
















Project No.: GTSE140200129RF



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